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09/925,160	08/08/2001	Stephen Clark Purcell	TMC# BEL-018	3079

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EXAMINER

HAMZA, FARUK

ART UNIT PAPER NUMBER

2155

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/925,160

Applicant(s)

PURCELL ET AL.

Examiner

Faruk Hamza

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15,22-36 and 43-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15,22-36 and 43-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 16-21,37-42 and 58-63 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Claims 16-21, 37-42 and 58-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on December 07, 2005. Claims 1-15, 22-36 and 43-57 are now pending.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3, 14, 15, 22, 35, 36, 43, 56 and 57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "transmit portion, retain portion and return portion" in claims 1, 14, 15, 22, 35, 36, 43, 56 and 57 are relative term, which renders the claim indefinite. The terms "transmit portion, retain portion and return portion" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear to examiner "transmit portion, retain portion and return portion" consist of what.

Claim 1, recites "the tag" in lines 14,15,16,19 and 20. It is unclear to examiner whether applicant referring to the first tag or the second tag.

Claim 2 recites the limitation "the same tags" in line 24. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the same order" in line 25. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the same tags" in line 30. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the same order" in line 30. There is insufficient antecedent basis for this limitation in the claim.

Claim 22, recites "the tag" in lines 24,25,26,28 and 29. It is unclear to examiner whether applicant referring to the first tag or the second tag.

Claim 23 recites the limitation "the same tags" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "the same order" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the same tags" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the same order" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 35, recites "the tag" in lines 17-19. It is unclear to examiner which tag applicant is referring to.

Claim 36, recites "the tag" in lines 27-30. It is unclear to examiner which tag applicant is referring to.

Claim 43, recites "the tag" in lines 1-3 and 5-6. It is unclear to examiner which tag applicant is referring to.

Claim 44 recites the limitation "the same tags" in line 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 44 recites the limitation "the same order" in line 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 45 recites the limitation "the same tags" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 45 recites the limitation "the same order" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 56, recites "the tag" in lines 10,12 and 13. It is unclear to examiner which tag applicant is referring to.

Claim 57, recites "the tag" in lines 21-24. It is unclear to examiner which tag applicant is referring to.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-15, 22-36 and 43-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Regnier et al. (U.S. Patent Number 6,647,423) hereinafter referred as Regnier.

Regnier teaches the invention as claimed including an interprocess communication technique transfers a message from a first process memory directly to a second process memory and the message is identified by a virtual address (See abstract).

As to claim 1, Regnier teaches an apparatus comprising:

a sender including

a first controller configured to identify a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses controller to identify items);

a first tag generator configured to generate a tag and associate the tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses associating tag);

a first transmitter configured to send the transmit portion, but not the tag, to a target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses sending transmit portion);

wherein the target includes

a first receiver configured to receive the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses receiving transmit portion);

a second controller configured to identify a return portion corresponding to the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses identify return portion and corresponding to transmit portion);

a second tag generator configured to independently generate the tag and associate the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses generating tag and associating the tag with return portion);

a second transmitter configured to send the return portion and the tag to the sender (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses sending return portion with tag);

wherein the sender includes

a second receiver configured to receive the return portion and the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses receiving return portion and tag); and

wherein the first controller is configured to identify the retain portion using the tag and associate the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61, Regnier discloses identify return portion using tag).

As to claim 2, Regnier teaches the apparatus of claim 1, further comprising:

means for initializing the first and second tag generators to generate the same tags in the same order (Column 5, lines 28-41; Column 6, lines 28-44).

As to claim 3, Regnier teaches the apparatus of claim 2, wherein each of the first and second tag generators includes a buffer and means for initializing comprises:



means for loading each buffer with a set of tags such that both buffers contain the same tags in the same order and no tag in the set is the same as any other tag in the set (Column 2, lines 38-60).

As to claim 4, Regnier teaches the apparatus of claim 3, wherein the first tag generator is configured to remove the tag from the buffer (Column 2, lines 38-60).

As to claim 5, Regnier teaches the apparatus of claim 4, wherein the first controller is configured to return the tag to the first tag generator after associating the return portion with the retain portion (Column 3, lines 38-65).

As to claim 6, Regnier teaches the apparatus of claim 5, wherein the second controller is configured to return the second tag to the second tag generator after sending the return portion (Column 4, lines 41-56).

As to claim 7, Regnier teaches the apparatus of claim 1, wherein the sender and target are different layers of a multi-layer switch coupling a processor to a memory, the forward item includes a memory transaction, and the reverse item includes a result of the memory transaction (Column 2, lines 38-60).

As to claim 8, Regnier teaches the apparatus of claim 7, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 9, Regnier teaches the apparatus of claim 1, wherein the sender is a processor and the target is a layer in a multiple-layer switch having a plurality of layers (Column 6, lines 62-Column 7, lines 15; Column 2, lines 38-60).

As to claim 10, Regnier teaches the apparatus of claim 9, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 11, Regnier teaches the apparatus of claim 2, wherein each of the first and second tag generators includes a counter and means for initializing comprises:

means for setting both counters to the same value (Column 3, lines 30-37).

As to claim 12, Regnier teaches the apparatus of claim 11, wherein means for associating a tag comprises:

means for incrementing the counter (Column 3, lines 30-37); and

means for associating the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 13, Regnier teaches the apparatus of claim 11, wherein the counters are incremented continuously according to a clock signal and each tag generator is configured to associate the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 14, Regnier teaches An apparatus comprising:  
a controller configured to identify a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

a tag generator configured to associate a tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

a transmitter configured to send the transmit portion, but not the tag, to a target that identifies a return portion corresponding to the transmit portion, independently generates the tag, and associates the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61); and

a receiver configured to receive the return portion and the tag from the target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

wherein the controller is further configured to identify the retain portion using the tag and associate the return portion with the retain portion to

create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 15, Regnier teaches an apparatus comprising:

a receiver configured to receive a transmit portion of an item from a sender that associates a tag with a retain portion of the item and sends the transmit portion, but not the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

a controller configured to identify a return portion corresponding to the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

a tag generator configured to independently generate the tag and associate the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

a transmitter configured to send the return portion and the tag to the sender, wherein the sender identifies the retain portion using the tag and associates the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 22, Regnier teaches a method comprising:

at a sender,

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identifying a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

generating a tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associating the tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

sending the transmit portion, but not the tag, to a target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

at the target,

receiving the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identifying a return portion corresponding to the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

independently generating the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associating the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

sending the return portion and the tag to the sender (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

at the sender

receiving the return portion and the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identifying the retain portion using the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61); and

associating the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 23, Regnier teaches the method of claim 22, wherein the tag is independently generated by a first tag generator at the sender and by a second tag generator at the target, further comprising:

initializing the first and second tag generators to generate the same tags in the same order (Column 5, lines 28-41; Column 6, lines 28-44).

As to claim 24, Regnier teaches the method of claim 23, wherein each of the first and second tag generators is a buffer and initializing comprises:

loading each buffer with a set of tags such that both buffers contain the same tags in the same order and no tag in the set is the same as any other tag in the set (Column 2, lines 38-60).

As to claim 25, Regnier teaches the method of claim 24, wherein associating a tag comprises:

removing the tag from the buffer (Column 2, lines 38-60).

As to claim 26, Regnier teaches the method of claim 25, further comprising: returning the tag to the first tag generator after associating the return portion with the retain portion (Column 3, lines 38-65).

As to claim 27, Regnier teaches the method of claim 26, further comprising:

returning the second tag to the second tag generator after sending the return portion (Column 4, lines 41-56).

As to claim 28, Regnier teaches the method of claim 22, wherein the sender and target are different layers of a multi-layer switch coupling a processor to a memory, the forward item includes a memory transaction, and the reverse item includes a result of the memory transaction (Column 2, lines 38-60).

As to claim 29, Regnier teaches the method of claim 28, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 30, Regnier teaches the method of claim 22, wherein the sender is a processor and the target is a layer in a multiple-layer switch having a plurality of layers (Column 6, lines 62-Column 7, lines 15; Column 2, lines 38-60).

As to claim 31, Regnier teaches the method of claim 30, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 32, Regnier teaches the method of claim 23, wherein each of the first and second tag generators is a counter and initializing comprises: setting both counters to the same value (Column 3, lines 30-37).

As to claim 33, Regnier teaches the method of claim 32, wherein associating a tag comprises:

incrementing the counter; and  
associating the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 34, Regnier teaches the method of claim 32, wherein the counters are incremented continuously according to a clock signal and associating a tag comprises:



associating the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 35, Regnier teaches a method comprising:

identifying a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associating a tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

sending the transmit portion, but not the tag, to a target that identifies a return portion corresponding to the transmit portion, independently generates the tag, and associates the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

receiving the return portion and the tag from the target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);;

identifying the retain portion using the tag; and

associating the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 36, Regnier teaches A method comprising:

receiving a transmit portion of an item from a sender that associates a tag with a retain portion of the item and sends the transmit portion, but not the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identifying a return portion corresponding to the transmit portion; independently generating the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associating the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

sending the return portion and the tag to the sender, wherein the sender identifies the retain portion using the tag and associates the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 43, Regnier teaches A computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

at a sender,

identify a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

generate a tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associate the tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

send the transmit portion, but not the tag, to a target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);  
at the target,

receive the transmit portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identify a return portion corresponding to the transmit portion;

independently generate the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associate the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

send the return portion and the tag to the sender (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

at the sender;

receive the return portion and the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identify the retain portion using the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61); and

associate the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 44, Regnier teaches the computer program product of claim 43, wherein the tag is independently generated by a first tag generator at the sender and by a second tag generator at the target, further comprising instructions operable to cause a programmable processor to:

initialize the first and second tag generators to generate the same tags in the same order (Column 5, lines 28-41; Column 6, lines 28-44).

As to claim 45, Regnier teaches the computer program product of claim 44, wherein each of the first and second tag generators is a buffer and instructions operable to cause a programmable processor to initialize comprise instructions operable to cause a programmable processor to:

load each buffer with a set of tags such that both buffers contain the same tags in the same order and no tag in the set is the same as any other tag in the set (Column 2, lines 38-60).

As to claim 46, Regnier teaches the computer program product of claim 45, wherein instructions operable to cause a programmable processor

to associate a tag comprise instructions operable to cause a programmable processor to:

remove the tag from the buffer (Column 2, lines 38-60).

As to claim 47, Regnier teaches the computer program product of claim 46, further comprising instructions operable to cause a programmable processor to:

return the tag to the first tag generator after associate the return portion with the retain portion (Column 3, lines 38-65).

As to claim 48, Regnier teaches the computer program product of claim 47, further comprising instructions operable to cause a programmable processor to:

return the second tag to the second tag generator after send the return portion (Column 4, lines 41-56).

As to claim 49, Regnier teaches the computer program product of claim 43, wherein the sender and target are different layers of a multi-layer switch coupling a processor to a memory, the forward item includes a memory transaction, and the reverse item includes a result of the memory transaction (Column 2, lines 38-60; Column 6, lines 63-Column 7, lines 15).

As to claim 50, Regnier teaches the computer program product of claim 49, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 51, Regnier teaches the computer program product of claim 43, wherein the sender is a processor and the target is a layer in a multiple-layer switch having a plurality of layers (Column 2, lines 38-60; Column 6, lines 63-Column 7, lines 15).

As to claim 52, Regnier teaches the computer program product of claim 51, wherein the processor is a graphics processor (Column 6, lines 62-Column 7, lines 15).

As to claim 53, Regnier teaches the computer program product of claim 44, wherein each of the first and second tag generators is a counter and instructions operable to cause a programmable processor to initialize comprise instructions operable to cause a programmable processor to: set both counters to the same value (Column 3, lines 30-37).

As to claim 54, Regnier teaches the computer program product of claim 53, wherein instructions operable to cause a programmable processor

to associate a tag comprise instructions operable to cause a programmable processor to:

increment the counter (Column 3, lines 30-37); and

associate the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 55, Regnier teaches the computer program product of claim 53, wherein the counters are incremented continuously according to a clock signal and instructions operable to cause a programmable processor to associate a tag comprise instructions operable to cause a programmable processor to:

associate the value output by the counter with the tag (Column 3, lines 30-37).

As to claim 56, Regnier teaches A computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

identify a forward item including a transmit portion and a retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

associate a tag with the retain portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

send the transmit portion, but not the tag, to a target that identifies a return portion corresponding to the transmit portion, independently generates the tag, and associates the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

receive the return portion and the tag from the target (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);  
identify the retain portion using the tag; and  
associate the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

As to claim 57, Regnier teaches a computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

receive a transmit portion of an item from a sender that associates a tag with a retain portion of the item and sends the transmit portion, but not the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

identify a return portion corresponding to the transmit portion;  
independently generate the tag (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);



associate the tag with the return portion (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61);

send the return portion and the tag to the sender, wherein the sender identifies the retain portion using the tag and associates the return portion with the retain portion to create a reverse item (Column 3, lines 39-Column 4, lines 56; Column 5, lines 28-Column 6, lines 61).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faruk Hamza whose telephone number is 571-272-7969. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached at 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll -free).

Faruk Hamza

Patent Examiner

Group Art Unite 2155



**SALEH NAJJAR**  
**SUPERVISORY PATENT EXAMINER**